



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

nm

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/683,921

03/01/2002

Timothy P. Goggins

NG-31336

3798

22202

7590

09/22/2004

WHYTE HIRSCHBOECK DUDEK S C
555 EAST WELLS STREET
SUITE 1900
MILWAUKEE, WI 53202

EXAMINER

KOYAMA, KUMIKO C

ART UNIT

PAPER NUMBER

2876

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/683,921

Applicant(s)

GOGGINS, TIMOTHY P.

Examiner

Kumiko C. Koyama

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Acknowledgement is made of receipt of Amendment filed on January 30, 2004.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 5-7, 17, 22-23 and 38-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergmann et al (US 5,944,356) in view of Clay (US 4,869,946).

In Fig. 1, Bergmann shows a card having data 3 incorporated in schematically shown lenticular screen field 8, which is a lenticular lens having lenticules shown in Fig. 2 (Fig. 1, Fig. 2 and col 3, lines 48-49). As shown in Fig. 1, the lenticules of the lenticular screen field is in a parallel position to the y axis direction. Fig. 2 shows that the opposite side of the lenticular screen field side is a flat back surface. The image data 3 are burned into the surface of inlay 5, which is attached to the flat back surface as shown in Fig. 2. The lenticular screen field 8, or the lenticular lens, is in a overlay relationship with the image data 3 (Fig. 2). Bergmann shows that each segment of the letters and numbers, such as A, B, 12 and 34 in the image data 3 form intersect with the lines of the lenticules and form an angle. For example, the segment "1" in the number 12, form a perpendicular angle with the lines of the lenticules. On the other hand, there are segments in "A" that are in parallel with the lines of the lenticules.

However, Bergmann fails to teach that the image includes a bar code symbol.

Clay shows a lenticular lens 10 having a front surface including a plurality of lenticules 11 and a back surface opposite the front surface (col 2 lines 57-59, Fig 1), an image 12 joined to the back surface of the lens (col 2 lines 62-67, Fig 1), and the image including a bar code 23 symbol having bars (col 3 lines 67+, Fig 3). Clay teaches that the lenticular lens and the image are in overlay relationship with one another (col 4 lines 57-60). Clay further teaches that the presence of the bar code permits human or machine readability by conventional means. Clay also discloses that the bar code image is visible at all angles.

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Clay to the teachings of Bergmann in order to prevent the bar code from fraud or being tampered by protecting the bar code with a lenticular lens. Such modification maintains the bar width and size of the bar code in its original form, and subsequently does not provide wrong information to the reader.

3. Claim 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergmann in view of Clay as applied to claim 1 above, and further in view of Bravenec et al (US 6,073,854). The teachings of Bergmann as modified by Clay have been discussed above.

Bergmann as modified by Clay fails to teach that the bars of the bar code symbol are skewed with respect to the lenticules of the lenticular lens and are not aligned with the lenticules of the lenticular lens. Bergmann as modified by Clay also fails to teach a bar code offset angle between the bars of the bar code symbol and the lenticules of the lenticular lens.

Bravenec shows that the lenticules of a sheet of lenticular material may be at an angle to the longitudinal axis (col 2 lines 24-30, Fig 1C).

Art Unit: 2876

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to modify the teachings of Bergmann as modified by Clay to the teachings of Bravenec and place a sheet of lenticular material having lenticules at an angle to the bars of the barcode symbol because a barcode symbol reader may misread the lenticules as one of the bars of the barcode symbol, and therefore the modification would avoid such misreading and errors.

4. Claims 8, 9, 11 and 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergmann in view of Clay as applied to claim 1 above, and further in view of Addy (US 6,386,448). The teachings of Bergmann as modified by Clay have been discussed above.

Bergmann as modified by Clay fail to teach a hand-held barcode scanner to read the bar code through the lenticules of the lenticular lens. Bergman as modified by Clay also fail to teach that the bar code is an Universal Product Code.

Addy teaches a hand-held scanner that scans or reads a product identification code such as a Universal Product Code (UPC) (col 5 lines 26-35).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Addy to the teachings of Bergmann as modified by Clay in order to read the barcode symbol on the image through the lenticules of the lenticular lens to uniquely identify the image or the product in a faster manner.

5. Claims 10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergmann as modified by Clay as applied to claim 7 above, and further in view of McGinty et al (US 6,010,970). The teachings of Bergmann as modified by Clay have been discussed above.

Bergmann as modified by Clay fail to teach that the bar code symbol has an ANSI readability grade of at least a C and the bar code symbol is one of a Code 39 symbology, an Interleaved 2 of 5 symbology, a Codabar symbology, a Code 128 symbology, a Code 93 symbology, and a Postnet symbology.

McGinty teaches a bar code readability grade of C using Code 39 symbology (col 3 lines 47-51).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of McGinty to the teachings of Bergmann as modified by Clay in order to create a clearly defined, but precise, barcode symbol so that the barcode can contain details or information on the product to identify the product in a faster manner.

6. Claims 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergmann in view of Clay as applied to claim 1, and further in view of McKee (U.S. Patent Application Publication 2002/0038917). The teachings of Bergmann as modified by Clay have been discussed above.

Bergmann as modified by Clay fails to teach that the lenticules of the lenticular lens have a width of less than about 0.006667 inches and that the lenticular lens includes at least 150 lenticules per inch (LPI).

McKee teaches 200 lenticules per inch, which calculates to a width of 0.005 inches for each lenticule (Page 1, Paragraph [0004], lines 4-8).

Art Unit: 2876

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of McKee to the teachings of Bergmann as modified by Clay in order to reduce the obtrusiveness by decreasing the width of the lenticules.

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bergmann in view of Clay and McKee as applied to claim 12, and further in view of Fotland (US 4,935,335). The teachings of Bergmann as modified by Clay and McKee have been discussed above.

Bergmann as modified by Clay and McKee fail to teach that the lenticules of the lenticular lens have a focal length and a gauge thickness and wherein the focal length is substantially equal to the gauge thickness.

Fotland teaches that the focal length of each lenticles should be equal to the thickness of the lenticular sheet (col 1, lines 30-35).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Fotland to the teachings of Bergmann as modified by Clay and McKee in order to provide a multiple imagining lenticular lens assembly to provide more information.

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bergmann in view of Clay, McKee and Fotland as applied to claim 13 above, and further in view of Sandor et al (US 5,330,799). The teachings of Bergmann as modified by Clay, McKee and Fotland have been discussed above.

Bergmann as modified by Clay, McKee and Fotland fail to teach that the gauge thickness is less than about 10 mils.

Sandor teaches that transparent base film has a thickness 10 mils (col 8, line 35).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Sandor to the teachings of Bergmann as modified by Clay, McKee and Fotland in order to have sufficient thickness to provide lenticules with clear image and size.

9. Claims 18-21, 24, 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergmann in view of Clay as applied to claim 1, further in view of Guest (WIPO 00/09319). The teachings of Bergmann as modified by Clay have been discussed above.

Bergmann as modified by Clay fail to teach that the image is printed directly to the flat back surface of the lenticular lens, the image printing method, the image is not printed onto the lenticular lens by a photographic printing process, the lens comprises plastic material, and the image is applied to at least one of package, a cup, a container, and a label.

Guest teaches a volume-defining items having lenticular lens technology to provide images on the produced items. Items may include containers, boxes, cups (Page 1, lines 6 and 15-18). The system includes a lenticular lens on one surface of the plastic film and a flat surface on the other (Page 1, lines 21-22). The flat surface is printed with an image (Page 2, line 8-9) and affixed on the surface of a volume-defining item, wherein the lenticular lens assembly serves as a label. Guest also teaches that the printing is done by a sheet fed offset (lithographic), web fed offset (lithographic), and web fed roto-gravure (Page 2, lines 4-5).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Guest to the teachings of Bergmann as modified by Clay in order to provide a means for producing an attractive, aesthetic display with enhanced marketing and advertising appeal.

Art Unit: 2876

10. Claims 25-27 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergmann in view of Clay as applied to claim 1 above, and further in view of Gottfried et al (US 6,329,987). The teachings of Bergmann as modified by Clay have been discussed above.

Bergmann as modified by Clay fail to teach that the lens comprises an ultraviolet curable resin and a plastic material selected from the group consisting of: polyester vinyl, polycarbonate, polyvinyl chloride, polyethylene telephthalate, and amorphous polyethylene terephthalate.

Gottfried teaches that the lens can be made of polyvinyl chloride, polyethylene telephthalate etc and can be printed with image printed with ink that can then be cured with ultraviolet light (col 12, lines 38-44 and lines 54-55).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Gottfried to the teachings of Bergmann as modified by Clay in order to obtain an accurate information by providing a clear translucent material and ink that can be read by a machine, which obtains information in a fast and an accurate manner.

11. Claims 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergmann in view of Clay and Guest.

In Fig. 1, Bergmann shows a card having data 3 incorporated in schematically shown lenticular screen field 8, which is a lenticular lens having lenticules shown in Fig. 2 (Fig. 1, Fig. 2 and col 3, lines 48-49). As shown in Fig. 1, the lenticules of the lenticular screen field is in a parallel position to the y axis direction. Fig. 2 shows that the opposite side of the lenticular screen field side is a flat back surface. The image data 3 are burned into the surface of inlay 5, which is attached to the flat back surface as shown in Fig. 2. The lenticular screen field 8, or the

Art Unit: 2876

lenticular lens, is in a overlay relationship with the image data 3 (Fig. 2). Bergmann shows that each segment of the letters and numbers, such as A, B, 12 and 34 in the image data 3 form intersect with the lines of the lenticules and form an angle. For example, the segment "1" in the number 12, form a perpendicular angle with the lines of the lenticules. On the other hand, there are segments in "A" that are in parallel with the lines of the lenticules.

However, Bergmann fails to teach that the image includes a bar code symbol.

Clay shows a lenticular lens 10 having a front surface including a plurality of lenticules 11 and a back surface opposite the front surface (col 2 lines 57-59, Fig 1), an image 12 joined to the back surface of the lens (col 2 lines 62-67, Fig 1), and the image including a bar code 23 symbol having bars (col 3 lines 67+, Fig 3). Clay teaches that the lenticular lens and the image are in overlay relationship with one another (col 4 lines 57-60). Clay further teaches that the presence of the bar code permits human or machine readability by conventional means. Clay also discloses that the bar code image is visible at all angles.

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Clay to the teachings of Bergmann in order to prevent the bar code from fraud or being tampered by protecting the bar code with a lenticular lens. Such modification maintains the bar width and size of the bar code in its original form, and subsequently does not provide wrong information to the reader.

Bergmann as modified by Clay fail to teach a label, a container, a cup, and a package.

Guest teaches a volumn-deifining items having lenticular lens technology to provide images on the produced items. Items may include containers, boxes, cups (Page 1, lines 6 and 15-18). The system includes a lenticular lens on one surface of the plastic film and a flat surface

Art Unit: 2876

on the other (Page 1, lines 21-22). The flat surface is printed with an image (Page 2, line 8-9) and affixed on the surface of a volume-defining item, wherein the lenticular lens assembly serves as a label.

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Guest to the teachings of Bergmann as modified by Clay in order to provide a means for producing an attractive, aesthetic display with enhanced marketing and advertising appeal.

12. Claims 43-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergmann in view of Clay as applied to claim 1 above, and further in view of Lo et al (US 3,895,867). The teachings of Bergmann as modified by Clay have been discussed above.

Bergmann as modified by Clay fail to teach that the lenticular bar code image minimizes distortion of the bar code symbol as the bar code symbol appears through the lenticules and facilitates non-distortion.

Lo discloses that the composing lenticular screen could be designed to leave a very small viewing angle. The rocking angle will therefore be small, thus minimizing the distortion of the enlarged image.

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Lo to the teachings of Bergmann as modified by Clay in order to have a clear and distinct view of the bar code so that the bar code scanner as well as a human eye can clearly capture the image of the barcode. Such modification ensures that the scanner or bar code reader reads the correct bar code signal, so that it can further retrieve the correct data describing the object.

Response to Arguments

13. Applicant's arguments with respect to claims 1-42 have been considered but are moot in view of the new ground(s) of rejection.

The Applicant has amended new limitation, such as "oriented along an axial direction" and "...a line parallel to the axial direction..." to the claims. The Applicant also added new claims 43-46. Such new limitation required new search and further consideration. Therefore, this action is Final.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Becker et al., U.S. Patent No. 4,765,656, discloses a data carrier having an optical authenticity feature and methods for producing and testing said data carrier.

Bergmann et al., U.S. Patent No. 6,179,338, discloses a compound film for an identify card with a humanly visible authenticity feature.

Enrique et al., U.S. Patent No. 5,859,957, discloses a method and devices for the generation of printed images which define pattern to be used in graphic information

Hruby et al., U.S. Patent No. 6,000,332, discloses a process for achieving a lenticular effect by screen printing.

Huang, U.S. Patent No. 5,999,280, discloses a holograph anti-imitation method and device for preventing unauthorized reproduction.

Hutton et al., U.S. Patent No. 4,033,059, discloses documents of value including intaglio printed transitory images.

Fantone et al., U.S. Patent No. 6,010,292, discloses a method for fabricating a compliant image carrying printed insert.

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

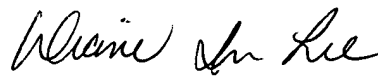
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kumiko C. Koyama whose telephone number is 571-272-2394. The examiner can normally be reached on Monday-Friday 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 571-272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2876

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kumiko C. Koyama
September 18, 2004


DIANE I. LEE
PRIMARY EXAMINER